REMARKS

Upon entry of the foregoing Amendment, Claims 3, 5, 7-15 and 18-22 are pending in the application. Claims 1, 2, 4, 6 and 17 have been canceled. Claims 3, 5, 7, 8, 12, 13, 18 and 19 have been amended. Claims 20-22 have been added. The amendments and newly added claims are supported by the specification at least in paragraphs [0038] and [0077], and by the original claims. No new matter has been introduced. Entry of the amendment is respectfully requested.

In the Office Action dated December 23, 2010, the Examiner sets forth a number of grounds for rejection. These grounds are addressed individually and in detail below.

Claim Rejections Under 35 U.S.C. § 112, second paragraph

Claims 7-15 and 18-19 stand rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps. Independent Claims 7 and 12 have been amended to address the Examiner's concerns.

Applicants respectfully submit that the grounds for the rejection have been obviated and withdrawal of the rejections under 35 U.S.C. 112, second paragraph is respectfully requested.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-3, 5-10, 12-14 and 17-19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Karin (US Publication No. 2003/0166589) for the reasons set forth on pages 3-4 of the Office Action. Claims 1-11 and 18-19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Lane (WO 02/015932) for the reasons set forth on page 4 of the office Action. Applicants respectfully traverse the rejections.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent Claim 7, as amended, is directed to a method of treating a mammal with inflammatory disease, comprising: a) exposing a tissue sample from said mammal to differing antibodies which bind to specific chemokines, wherein said chemokines are selected from the group consisting of CXCL9, CXCLl0, CXCL11, CCRL1, CCRL2, CCR5, CCLl, CCL2, CCL3, CCL4, CCL4L1, CCL5, CCL7, CCL8, CCL14-1, CCL14-2, CCL14-3, CCLl5-1, CCLl5-2, CCL16, CCL19, CCL23-1, CCL23-2, CCL24, CCL26, CCR6, CCL20, CCL25, CCL25-1, CCL25-2 and CCR10; b) determining a level of expression of each chemokine based on binding of the each of said antibodies and identifying an over-expressed chemokine in said tissue sample, and c) administering to said mammal at least one antibody specific for said over-expressed chemokine

Independent Claim 12, as amended, is directed to a method of treating a mammal with inflammatory disease, comprising: a) determining the level of particular chemokines in a tissue sample in said mammal using PCR, wherein said chemokines are selected from the group consisting of CXCL9, CXCLl0, CXCL11, CCRL1, CCRL2, CCR5, CCLl, CCL2, CCL3, CCL4, CCL4L1, CCL5, CCL7, CCL8, CCL14-1, CCL14-2, CCL14-3, CCLl5-1, CCLl5-2, CCL16, CCL19, CCL23-1, CCL23-2, CCL24, CCL26, CCR6, CCL20, CCL25, CCL25-1, CCL25-2 and CCR10; b) identifying an over-expressed chemokine; and c) administering to said mammal at least one antibody specific for said over-expressed chemokine.

As noted in the specification, the particular chemokines which give rise to inflammatory diseases differ with the disease and also differ among individuals. Therefore, it is important to determine the chemokine expression profile in each individual patient prior to treatment and inhibit only those chemokines that are over-expressed in the individual patient.

In contrast, Karin generally describes a method for treating or preventing an autoimmune disease using an anti-interferon gamma-inducible protein 10 (IP-10) antibody. Lane generally describes a method of reducing the severity and reversing the neurological effects of a demyelinating disease using anti-IP-10 antibody. Specifically, neither Karin nor Lane teachs or suggests determining the chemokine expression profile in individual patient prior to treatment. Neither Karin nor Lane teaches or suggests the steps of "a) exposing a tissue sample from said mammal to differing antibodies which bind to specific chemokines, wherein said chemokines are selected from the group consisting of CXCL9, CXCLl0, CXCL11, CCRL1, CCRL2, CCR5, CCLl, CCL2, CCL3, CCL4, CCL4L1, CCL5, CCL7, CCL8, CCL14-1, CCL14-2, CCL14-3, CCLl5-1, CCLl5-2, CCL16, CCL19, CCL23-1, CCL23-2, CCL24, CCL26, CCR6, CCL20, CCL25, CCL25-1, CCL25-2 and CCR10; b) determining a level of expression of each chemokine based on binding of the each of said antibodies and identifying an over-expressed chemokine in said tissue sample," as recited in Claim 7, or "a) determining the level of particular chemokines in a tissue sample in said mammal using PCR, wherein said chemokines are selected from the group consisting of CXCL9, CXCLl0, CXCL11, CCRL1, CCRL2, CCR5, CCLl, CCL2, CCL3, CCL4, CCL4L1, CCL5, CCL7, CCL8, CCL14-1, CCL14-2, CCL14-3, CCLl5-1, CCLl5-2, CCL16, CCL19, CCL23-1, CCL23-2, CCL24, CCL26, CCR6, CCL20, CCL25, CCL25-1, CCL25-2 and CCR10; b) identifying an over-expressed chemokine," as recited in Claim 12.

The Examiner alleges that Karin describes exposure of tissues to anti-CXCL10 antibodies and identifying the level of chemokine based on binding of the antibodies in paragraph 191 and identifying CXCL10 using PCR on tissue samples in paragraph 160, and that Lane describes exposure and expression level identification assays at p.35, third paragraph and in Example 3. Applicants respectfully submit that the cited passages in Karin refer to determination of Th1/Th2 cytokine levels in spleen T cells (paragraph 191) or IP-10 levels in tissues from rats subjected to IP-10 DNA vaccination (paragraph 160), and that the cited passages in Lane refer to an assay that determines the ability of a neutralizing agent to inhibit the interaction of IP-10 by measuring and comparing intracellular calcium changes. The cited paragraphs, however, do not teach or suggest determining the chemokine expression profile in individual patient prior to treatment by anti-chemokine antibodies or PCR.

Therefore, Claims 7 and 12 are patentable over Karin or Lane, because Karin or Lane fails to teach each and every element of the claimed invention. Claims 3, 5, 8-11, 13-14 and 18-22 are patentable because they depend from one of Claims 7 and 12, and recite additional patentable subject matter.

In view of the foregoing, Applicants respectfully submit that the grounds for the rejections have been obviated and withdrawal of the rejections under 35 U.S.C. §102 is respectfully requested. Claims 1, 2, 4, 6 and 17 have been canceled. Rejection to these claims is now moot.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-15 and 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Karin and Lane, for the reasons set forth on pages 5-7 of the Office Action. Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Further, the key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR,* 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

As discussed above, Neither Karin nor Lane teaches or suggests the steps of "a) exposing a tissue sample from said mammal to differing antibodies which bind to specific chemokines, wherein said chemokines are selected from the group consisting of CXCL9, CXCL10, CXCL11, CCRL1, CCRL2, CCR5, CCL1, CCL2, CCL3, CCL4, CCL4L1, CCL5, CCL7, CCL8, CCL14-1, CCL14-2, CCL14-3, CCL15-1, CCL15-2, CCL16, CCL19, CCL23-1, CCL23-2, CCL24, CCL26, CCR6, CCL20, CCL25, CCL25-1, CCL25-2 and CCR10; b) determining a level of expression of each chemokine based on binding of the each of said antibodies and identifying an over-

expressed chemokine in said tissue sample," as recited in Claim 7 or "a) determining the level of particular chemokines in a tissue sample in said mammal using PCR, wherein said chemokines are selected from the group consisting of CXCL9, CXCLl0, CXCL11, CCRL1, CCRL2, CCR5, CCLl, CCL2, CCL3, CCL4, CCL4L1, CCL5, CCL7, CCL8, CCL14-1, CCL14-2, CCL14-3, CCLl5-1, CCLl5-2, CCL16, CCL19, CCL23-1, CCL23-2, CCL24, CCL26, CCR6, CCL20, CCL25, CCL25-1, CCL25-2 and CCR10; b) identifying an over-expressed chemokine," as recited in Claim 12.

Therefore, Claims 7 and 12 are patentable over Karin or Lane, because Karin or Lane fails to teach or suggest all claim limitations. Claims 3, 5, 8-11, 13-17 and 18-22 are patentable because they depend from one of Claims 7 and 12, and recite additional patentable subject matter. Claims 1, 2, 4, 6 and 17 have been canceled. Rejection to these claims is now moot.

In view of the foregoing, Applicants respectfully submit that the grounds for the rejection have been obviated and withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of the application, the Examiner is invited to contact Applicants' counsel, Ping Wang (Reg. No. 48,328), at 202.662.3042.

Respectfully submitted,

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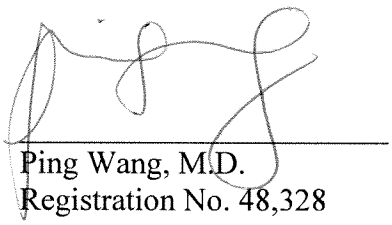

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